

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2020/0375480 A1 COSTA et al.

Dec. 3, 2020 (43) **Pub. Date:** 

### (54) NON-INVASIVE CARDIOVASCULAR RISK ASSESSMENT USING HEART RATE VARIABILITY FRAGMENTATION

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Appl. No.: 16/497,331 (21)

(22)PCT Filed: Mar. 23, 2018

(86) PCT No.: PCT/US2018/024107

§ 371 (c)(1),

Sep. 24, 2019 (2) Date:

### Related U.S. Application Data

(60) Provisional application No. 62/476,392, filed on Mar. 24, 2017.

#### **Publication Classification**

(51) Int. Cl. A61B 5/024 (2006.01)A61B 5/0245 (2006.01)

A61B 5/0468 (2006.01)A61B 5/00 (2006.01)

(52)U.S. Cl.

> CPC ...... A61B 5/02405 (2013.01); A61B 5/7275 (2013.01); A61B 5/0468 (2013.01); A61B

5/0245 (2013.01)

#### (57)ABSTRACT

Disclosed herein are example methods and systems for non-invasive cardiovascular risk assessment using heart rate variability fragmentation. A first set of electrocardiogram (ECG) signals may be received from a subject. Data from the first set of ECG signals may be analyzed to identify sign changes in heart rate acceleration in the first set of ECG signals. Based on the identified sign changes in heart rate acceleration, a degree of fragmentation in the first set of ECG signals may be determined. Afterwards, cardiovascular risk of the subject may be assessed based on the degree of fragmentation.

